

eIF4AIII (h): 293T Lysate: sc-112312

BACKGROUND

The eukaryotic translation factor 4A (eIF4A) is a member of DEA(D/H)-box RNA helicase family that couples ATP hydrolysis to RNA binding and duplex separation. eIF4A participates in the initiation of translation by unwinding secondary structure in the 5'-untranslated region of mRNAs and facilitating scanning by the 40S ribosomal subunit for the initiation codon. eIF4AIII is a component of the exon junction complex (EJC) that assembles near exon-exon junctions of mRNAs as a result of splicing. eIF4AIII, but not eIF4AI or eIF4AII, preferentially associates with spliced mRNA. eIF4AIII is found in the nucleus, whereas eIF4AI and eIF4AII are found in the cytoplasm.

REFERENCES

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3. Rogers, G.W., Jr., et al. 2001. Further characterization of the helicase activity of eIF4A. Substrate specificity. *J. Biol. Chem.* 276: 12598-12608.
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6. Montero-Lomeli, M., et al. 2002. The initiation factor eIF4A is involved in the response to lithium stress in *Saccharomyces cerevisiae*. *J. Biol. Chem.* 277: 21542-21548.
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CHROMOSOMAL LOCATION

Genetic locus: EIF4A3 (human) mapping to 17q25.3.

PRODUCT

eIF4AIII (h): 293T Lysate represents a lysate of human eIF4AIII transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

eIF4AIII (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive eIF4AIII antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

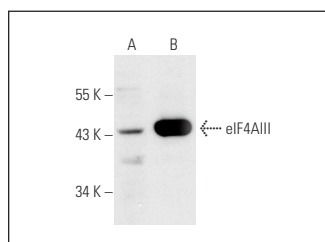
eIF4AIII (3F1): sc-33632 is recommended as a positive control antibody for Western Blot analysis of enhanced human eIF4AIII expression in eIF4AIII transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



eIF4AIII (3F1): sc-33632. Western blot analysis of eIF4AIII expression in non-transfected: sc-117752 (A) and human eIF4AIII transfected: sc-112312 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.